The relationship between perceived social support, psychological resilience and happiness levels of hemodialysis patients

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Abstract

Aim: In this study, we aim to determine the relationship between perceived social support, psychological resilience and happiness levels of hemodialysis patients.

Material and Methods: A total of 120 patients who applied to the Gaziantep Research and Training Hospital during the dates of September-October 2018 for hemodialysis treatment due to chronic renal failure were included in this cross sectional study. "Sociodemographic questionnaire", "Multidimensional Scale of Perceived Social Support (MSPSS)", "Oxford Happiness Questionnaire (OHQ)" and "Resilience Scale for Adults (RSA)" were used for assessment. Statistical analyses were made using IBM SPSS (Statistics for Windows, Version 21.0, Armonk, NY, IBM Corp).

Results: Total score means for patients were determined as; OHQ 96.87 ± 21.35, RSA, 97.58 ± 22.73, MSPSS 50.88 ±20.98. There was a positive correlation between OHQ total score and RSA total score (r: 0.59 p <0.05) and positively with MSPSS total score (r: 0.58 p <0.05). There was a positive correlation between RSA and MSPSS total scores (r: 0.55. P <0.05).

Conclusion: As perceived social support increases in hemodialysis patients, happiness levels and psychological resilience increase. Also happiness levels increase with increasing psychological resilience. Increasing the social support systems of hemodialysis patients can increase their happiness levels and psychological resilience.

Keywords: Perceived social support; psychological Resilience; happiness levels; hemodialysis patients.

INTRODUCTION

Chronic renal failure patients are dependent on healthcare institutions due to the frequent use of hemodialysis for treatment, in addition to the various health issues they experience,. Hence, hemodialysis asserts itself with regard to both the adjustment of the patient to the treatment and the changes that it causes in the life of the patient (1). Patients experience mental issues as much as physical problems, their psychopathologies increase (2). Those developing psychopathologies worsen the prognosis and turn into a vicious circle (2-4).

Psychological resilience develops as a result of the interaction between the risk factors that the individual is subject to and the protective factors contributing to the process of adaptation to these risk factors (5). It is the ability of the individual to cope with or successfully overcome a change or disasters when faced with significant sources of stress such as trauma, threat, tragedy or familial and relational problems, severe health issues (6). It is a multidisciplinary characteristic and a dynamic process that embodies personal attributes that enable development when faced with problems which is also measurable and can be learned and developed throughout one's life (7). It is important for the improvement of the psychological resilience of hemodialysis patients that there are protective factors in eliminating or reducing the impacts of subjected risks and the adverse impacts of these risks (8).

Social support is defined as psychological and instrumental resources provided by social networks for the individual to cope with stress (9). It can be stated that social support is high for individuals who are of the opinion that they are loved and respected by others, who have belief that there

are people they can ask for help when necessary (10). Social support meets fundamental social requirements with positive impacts on physical and psychological health.It has been put forth in many studies that the social support system is a strong source for individuals to cope with problematic situations in the solution, prevention and treatment of sociological and psychological issues (11-13).

Happiness is related with how the individual makes use of his/her life as well as their life satisfaction, individuals reach this satisfaction by experiencing positive emotions frequently, negative emotions rarely and by having the highest amount of satisfaction from their lives (14).

The support that patients receive from the people around themis very important especially for coping with negative situations.Also happiness is a protective factor for physical health (15). With regard to psychological resilience,support from social environment can be considered among factors that strengthen the patient, make it easier for them to cope with the issues they have to deal with as a result of their chronic disease and in the end help them be happy (6). So in this study we aim to analyses the factors that affect the patient's psychological resilience and relationship with perceived social support and their happiness levels considering the fact that psychological wellness of hemodialysis patients is a prominent factor to achieve successful rehabilitation.

MATERIAL and METHODS

Study Population
A total of 120 patients registered at the Gaziantep Hospital Hemodialysis unit during October 2018 – April 2019 were included in the study. The impact size (d=0.35) was chosen for the study aiming to investigate relationship between perceived social support, psychological resilience of hemodialysis patients to be statistically significant and the minimum number of participants was determined to be 120 (α=0.05, 1-β=0.80). Patients who have disruptive cognitive functions were excluded.Patient exclusion criteria were: being under 18 years of age, having mental retardation, substance abuse, schizophrenia spectrum and other psychotic disorders or bipolar disorder, history of head trauma, having neurological diseases (cerebrovascular event, Parkinson's disease etc. Anxiety and depression were not exclusion criteria.Inclusion criteria were being over 18 years of age and being subject to hemodialysis for at least 3 months and coming control visits and hemodialysis regularly.The patients gave their oral and written consent, and the approval for the study was obtained from the Medical Ethics Committees of Gaziantep.

Procedure
This is a descriptive-cross-sectional study. Patients to be included in the study were informed after which verbal and written consents were acquired from those who accepted to participate. In addition to the personal information form prepared by the researcher, Multidimensional Scale of Perceived Social Support, Oxford Happiness Questionnaire and Resilience Scale for Adults were used. The data were acquired via face-to-face interview method after stating the purpose and necessity of the study.

Data Acquisition Tools
Sociodemographic Questionnaire: The sociodemographic questionnaire was prepared by researchers in accordance with literature. It is comprised of 14 questions on the age, gender, marital status, education level, number of children, employment status, monthly income, social security, disease duration, family type, place of residence, free time activities pf the patients and whether they have any physical or mental health issues.

Multidimensional Scale of Perceived Social Support (MSPSS): Eker et al. carried out a study on the factor structure, reliability and validity of the revised edition of the form(11, 16).Cronbach alpha value was found to be between 0.80-0.95. Multidimensional Scale of Perceived Social Support is comprised of 12 items. It contains 3 groups related to the source of the support each of which has 4 items. These are; 'family', 'friend' and 'significant other'.Each item was scored using 7-point Likert.Sub-scale score is obtained by summing up the scores for the four items in each sub-scale and the total scale score is calculated by summing up the scores for all sub-scales. High scores indicate high perceived social support.

Oxford Happiness Questionnaire (OHQ): It has been developed in 2002 by Hills (Cronbach alpha: 0.91)and Argyle for measuring happiness (17)the validity and reliability study for which was carried out in Turkey in 2011 byDoğanand Çötok(18). OHQ is a 6-point Likert type (1-I do not agree at all, 6-I agree completely) measurement tool comprised of 29 items.An 8-factor structure with Eigen value of above 1 was obtained as a result of the factor analysis carried out for determining the construct validity for the scale.However, they concluded due to the issues related with the interpretation and naming of these factors that the scale should be used with a single factor(19).

Resilience Scale for Adults (RSA): The scale was developed by Friborget al. (2005) which was adapted into Turkish by Basımand Çetin (2011) (20, 21). Comprised of 33 items, it is a 5-pointLikert type scale. Cronbach alpha value was found to be between 0.75-086.The scale measures structured style, perception of future, perception of self, social competence and social resources(22).A format in which positive and negative responses are separated and there are five separate boxes for the responses has been used in order to prevent biased assessments when preferring the items in the scale.Type of scoring was set free for the high or low measurement of psychological resilience in the schematic evaluation.

Statistical Analysis
The behaviors of quantitative variables were put forth by way of centralization and variance measurements: Mean ± SD.Scale internal consistencies were evaluated via

Cronbach's alfa.Anova T-test was used for putting forth the behavior differences in group mean values in cases when normality and uniformity assumptions are met and non-parametric methods such as Kruskal-Wallis H Test (group number>2) and Mann Whitney U (group number=2) Test when these assumptions are not met(comparisons are presented in the tables 2 and 4).Spearman's Rank Correlation test was used for measuring the strength and direction of the correlation between two continuous variables(as seen in the table 3). Statistical significance was determined as p = 0,05for all cases. Statistical analyses were made using IBM SPSS (Statistics for Windows, Version 21.0, Armonk, NY, IBM Corp).

RESULTS

Sociodemographic and clinical characteristics
A total of 120 CRF patients were included in the study. It was determined that of the hemodialysis patients; 47.5 % were female, 21.7 % were in the 30-34 age interval,28.3 % were primary school graduates; 55 % were married,43.3 % did not have a child,78.3 % lived with their nuclear family,85 % lived at the city center,73.32 % are unemployed,63.3 % have low income levels,52.5 % have social security,51.7 % watch television in their spare time, 40.0 % solved their own problems, 30.0 % are sick for less than 1 year and that 42.2 % respond to the question of how they would behave in case of a health issue as they would wait for it to pass (Table: 1).

Scale and sub-scale results
It was determined that the OHQ total score mean value for CRF patients is 96.87 ± 21.35.It was determined that the RSA total score mean value is 97.58 ± 22.73, RSA Family Cohesion Sub-Scale total score man value is 19.41 ± 22.73, RSAPerception of future Sub-Scale total score mean value is 11.08 ± 3.17, RSA Perception of Self Sub-Scale total score mean value is 17.22 ± 4.31, RSA Social Resources Sub-Scale total score mean value is 20.06 ± 5.49, RSA Social Competence Sub-Scale total score mean value is 17.94 ± 5, RSA Structured Style Sub-Scale total score mean value is 11.33 ±3.3, MSPSS total score mean value is 50.88 ±20.98, MSPSS Family Sub-Scale total score mean value is 18.71 ±6.93, MSPSS Friend Sub-Scale total score mean value is 16.18 ±7.97, MSPSS Significant Other Sub-Scale total score mean value is16.13 ±8.17 (Table: 2).

Inter-scale correlations
There was a positive relationship (r:0.59 p<0.05) between OHQ total score mean value and RSA total score and similarly a positive relationship with MSPSS total score (r:0.58 p<0.05). A positive relationship was determined between the total score mean values for RSA and MSPSS (r:0.55. p<0.05). Table 3 presents the inter-scale correlations.

Comparative results for the scales with sociodemographic data
No statistically significant difference was determined between patient gender and Oxford Happiness Questionnaire total score mean value, RSAtotal score mean value and MSPSS total score mean value (p>0.05).

Table 2. Total Score Mean Values of Hemodialysis Patients for Oxford Happiness Questionnaire (OHQ), Resilience Scale for Adults (RSA) and Sub-scales and Multidimensional Perceived Social Support Scale (MSPSS) and Sub-Scales

Scales	X±SD	Median (Min-Max)	Cronbach's Alpha
Oxford Happiness Questionnaire Total Score	96.87 ± 21.35	102 (39 - 146)	0.89
RSA Family Cohesion Sub-Scale	19.41 ± 5.06	19 (8 - 30)	0.76
RSA Perception of future Sub-Scale	11.08 ± 3.17	12 (4 - 18)	0.54
RSA Perception of Self Sub-Scale	17.22 ± 4.31	18 (6 - 28)	0.61
RSA Social Resources Sub-Scale	20.6 ± 5.49	20 (7 - 33)	0.72
RSA Social Competence Sub-Scale	17.94 ± 5.67	18 (6 - 30)	0.81
RSA Structured Style Sub-Scale	11.33 ± 3.3	12 (4 - 20)	0.50
RSA Total Score	97.58 ± 22.73	99 (46 - 149)	0.92
MSPSS Family Sub-Scale	18.71 ± 6.93	20 (4 - 28)	0.95
MSPSS Friend Sub-Scale	16.18 ± 7.97	15 (4 - 28)	0.96
MSPSS Significant Other Sub-Scale	16.13 ± 8.17	16 (4 - 28)	0.95
MSPSS Total Score	50.88 ± 20.98	49 (12 - 84)	0.97

(m) Mann Whitney U Test (k) - Kruskal Wallis Test - (a) Anova T-test

A statistically significant difference was observed between the ages, education levels, spare time activities and behaviors in case of problems for the patients and Oxford Happiness Questionnaire total score mean value, RSAtotal score mean valueandMSPSS total score mean value (p<0.05).

A statistically significant difference was determined between the employment status, number of children and disease duration for the patients and Oxford Happiness Questionnairetotal score mean value and MSPSS total score mean value (p<0.05).

A statistically significant difference was determined between the marital status, income levels, social security and behaviors in case of health issues for the patients and MSPSS total score mean value (p<0.05).

A statistically significant difference was observed between the place of residence and Oxford Happiness Questionnairetotal score mean value (p<0.05) (Table: 4).

Table 3. Correlation between the Total Score Mean Values of Hemodialysis Patients for Oxford Happiness Questionnaire (OHQ), Resilience Scale for Adults (RSA) and Sub-scales and Multidimensional Perceived Social Support Scale (MSPSS) and Sub-Scales

Scales	OHQ	RSA TOTAL	RSA Structured Style SS	RSA Perception of future SS	RSA Family Cohesion SS	RSA Perception of Self SS	RSA Social Competence SS	RSA Social Resources SS	MSPSS Total	MSPSS Family SS	MSPSS Friend SS	MSPSS Significant Other SS
OHQ	1											
RSA Total	0.59*	1										
RSA Structured Style SS	0.54*	0.69*	1									
RSA Perception of future SS	0.46*	0.67*	0.53*	1								
RSA Family Cohesion	0.5*	0.76*	0.44*	0.34*	1							
RSA Perception of Self SS	0.5*	0.68*	0.48*	0.65*	0.36*	1						
RSA Social Competence SS	0.51*	0.82*	0.63*	0.52*	0.53*	0.6*	1					
RSA Social Resources SS	0.49*	0.81*	0.61*	0.48*	0.69*	0.43*	0.67*	1				
MSPSS Total	0.58*	0.55*	0.51*	0.46*	0.49*	0.42*	0.5*	0.43*	1			
MSPSS Family SS	0.48*	0.5*	0.36*	0.26*	0.57*	0.24*	0.39*	0.4*	0.84*	1		
MSPSS Friend SS	0.55*	0.57*	0.51*	0.5*	0.43*	0.45*	0.54*	0.44*	0.94*	0.69*	1	
MSPSS Significant Other SS	0.53*	0.45*	0.49*	0.44*	0.34*	0.47*	0.42*	0.34*	0.92*	0.64*	0.85*	1

Spearman's Correlation Test

DISCUSSION

Hemodialysis patients experience both physical and mental stress (3).The patients are more prone to stress related psychiatric comorbidities which has an adverse impact on the compliance with treatment, quality of life and disease prognosis of hemodialysis patients (3, 4, 23).Psychiatric protective treatments positively support these results (4).The relationships between perceived social support and psychological resilience levels of hemodialysis patients and their happiness levels as well as the related socio-demographic variables were examined in the present study. The results indicate that happiness levels and psychological resilience is positively related with perceived social support and that similarly psychological resilience levels are positively related with happiness levels. Moreover, sociodemographic factors were also determined to be related with perceived social support, psychological resilience and happiness levels.

MSPSS total score mean value was determined to be at a moderate level (50.88 ±20.98).Increased social support has positive impacts on treatment results and even on the immune system directly (24). It has been reported that anxiety decreases, compliance with treatment and self-care increases in hemodialysis patients with increasing perceived social support (25, 26). The results of our study were similar and positive indicating an increase in happiness levels and psychological resilience with perceived social support.It can be observed when sub-

groups are evaluated that social support from friends predicts happiness levels at the highest level and similarly that social support from friends predicts psychological resilience.It has been indicated in a study carried out in Turkey on the relationship between social support from the family and depression that depression levels decrease with increasing family support (27). Our study results support these findings indicating a positive and moderate relationship between social support and happiness level.

Psychological resilience is a protective factor for patients who confronted with stressors due to chronic illnesses (28). Studies show that positive emotions alleviate the detrimental psychological and physical effects of the chronic illness (29, 30). Happiness that is a positive emotion protects the physical health (15). Other studies carried on chronic diseases had found similar results (31). So it is important to increase psychosocial support system to increase happiness levels of the patients.

Perceived social support increases with aging until the age of45 after which it decreases again. While psychological resilience decreases after the age of 35,happiness level decreases with aging.Quality of life related with health decreases in the general population with aging (32).

Perceived social support was higher for single individuals, those with education levels of secondary school and above and employed individuals.Perceived social support was lower for those with a low income. Similar results have been put forth for African-Americanhemodialysisipatients (33).

Table 4. Comparison between the Sociodemographic Characteristics of Hemodialysis Patients and Total Scores for Oxford Happiness Questionnaire (OHQ), Resilience Scale for Adults (RSA) and Sub-scales and Multidimensional Perceived Social Support Scale (MSPSS)

| | | Mean ± SD | Median (Min−Max) | |
		Oxford Happiness Questionnaire Total Score	RSA Total	MSPSS Total
Gender	Female	94.91 ± 19.63	96.6 ± 23.07	49.98 ± 21.59
		98.5 (42 - 133)	99 (46 - 149)	45 (12 - 84)
	Male	98.6 ± 22.78	98.48 ± 22.57	51.71 ± 20.54
		104 (39 - 146)	98 (53 - 145)	52.5 (19 - 84)
Statistical values		0.168(m)	0.964(m	0.749(m)
Age	18-24	108.2 ± 3.77	103.09 ± 5.47	61.7 ± 19.24
		107.5 (104 - 115)	104 (94 - 111)	70 (17 - 78)
	25-29	106.15 ± 15.59	103.75 ± 16.08	69.95 ± 13.71
		107.5 (55 - 132)	101 (76 - 149)	74 (30 - 84)
	30-34	102.12 ± 12.88	103.88 ± 23.62	53.46 ± 20.17
		101 (79 - 146)	101 (57 - 148)	52.5 (20 - 84)
	35-39	91.38 ± 25.37	87.75 ± 20.98	43.63 ± 16.65
		103 (45 - 123)	94 (46 - 127)	42 (24 - 84)
	40-44	91.37 ± 19.33	92.11 ± 21.02	38.68 ± 12.39
		90 (39 - 133)	99 (52 - 144)	36 (19 - 75)
	45 and above	88.18 ± 28.3	94.37 ± 29.58	43.43 ± 22.85
		95.5 (39 - 135)	98 (46 - 145)	34 (12 - 84)
Statistical values		0.001(k)	0.026(k)	<0.001(a)
	Illiterate	74.58 ± 22.71	77.53 ± 24.34	33.95 ± 16.53
		69 (42 - 132)	70 (46 - 135)	33 (12 - 74)
	Literate	90.36 ± 25.4	97.73 ± 24.98	48.55 ± 23.21
		97 (39 - 131)	93 (56 - 145)	36 (24 - 84)
	Primary School	96.35 ± 22.12	93.68 ± 22.91	40.94 ± 15.27
		100.5 (39 - 146)	98 (52 - 144)	36.5 (17 - 83)
	Secondary School	103.0 ± 7.41	108.42 ± 19.34	61.58 ± 22.02
		102.5 (90 - 115)	101.5 (92 - 149)	72.5 (20 - 84)
	High School	106.32 ± 14.8	110.54 ± 17.38	61.04 ± 17.53
		106 (55 - 133)	104.5 (76 - 144)	65 (19 - 84)
	University	108.47 ± 6.02	98.87 ± 3.8	69.07 ± 12.54
		109 (97 - 119)	99 (93 - 106)	72 (35 - 84)
Statistical values		<0.001(k)	<0.001(k)	<0.001(a)
Marital Status	Married	93.45 ± 23.56	96.09 ± 23.77	47.62 ± 20.54
		98.5 (39 - 135)	99 (46 - 145)	40 (12 - 84)
	Single	101.87 ± 18.08	100.47 ± 21.87	57.62 ± 20.34
		104 (45 - 146)	101 (56 - 149)	64 (17 - 84)
	Divorced	91.8 ± 13.22	88.25 ± 21.34	35.2 ± 14.11
		94 (69 - 101)	95.5 (57 - 105)	42 (19 - 49)
	Living Separately	107.0 ± 7.07	97.5 ± 3.54	38.0 ± 26.87
		107 (102 - 112)	97.5 (95 - 100)	38 (19 - 57)
Statistical values		0.098(k)	0.504(k	0.031(k)
Number of children	None	101.82 ± 17.25	100.77 ± 21.01	57.96 ± 19.83
		104 (45 - 146)	100 (56 - 149)	64 (17 - 84)
	1	106.5 ± 12.7	105.4 ± 17.24	62.4 ± 20.64
		105.5 (90 - 133)	101 (87 - 144)	71.5 (29 - 80)
	2	95.89 ± 18.35	94.56 ± 15.69	45.56 ± 17.18
		99 (52 - 123)	96.5 (52 - 130)	41 (19 - 84)
	3	88.58 ± 26.21	92.72 ± 27.81	41.38 ± 19.88
		96.5 (39 - 135)	98 (46 - 145)	34.5 (12 - 84)
Statistical values		0.024(k)	0.181(k)	<0.001(a)

Table 4. Comparison between the Sociodemographic Characteristics of Hemodialysis Patients and Total Scores for Oxford Happiness Questionnaire (OHQ), Resilience Scale for Adults (RSA) and Sub-scales and Multidimensional Perceived Social Support Scale (MSPSS) (continued 1)

		Mean ± SD	Median (Min–Max)	
		Oxford Happiness Questionnaire Total Score	RSA Total	MSPSS Total
Current place of residence	Village	84.14 ± 24.48	83.86 ± 25.23	43.43 ± 22.21
		88.5 (50 - 132)	85.5 (46 - 135)	36.5 (15 - 84)
	Town	111.75 ± 7.63	99.75 ± 7.63	67.75 ± 12.92
		113.5 (101 - 119)	98.5 (93 - 109)	72 (49 - 78)
	City	98.04 ± 20.62	99.4 ± 22.26	51.25 ± 20.76
		103 (39 - 146)	99 (46 - 149)	52 (12 - 84)
Statistical values		0.012(k)	0.175(k)	0.128(k)
Family Type	Nuclear Family	97.04 ± 20.92	99.43 ± 22.69	50.82 ± 20.1
		101 (39 - 146)	99 (46 - 149)	46 (12 - 84)
	Extended Family	96.23 ± 23.26	90.96 ± 22.07	51.12 ± 24.3
		104 (50 - 132)	96.5 (46 - 135)	55.5 (15 - 84)
Statistical values		0.593(m)	0.163(m)	0.844(m)
Employment Status	Yes	107.16 ± 14.58	100 (76 - 137)	65.23 ± 15.5
		107 (55 - 146)	11.81 ± 1.91	72 (20 - 84)
	No	93.24 ± 22.22	98 (46 - 149)	45.83 ± 20.37
		99.5 (39 - 135)	11.15 ± 3.67	40 (12 - 84)
Statistical values		<0.001(m)	0.204(w)	<0.001(m)
Income level	Income less than expenses	94.48 ± 20.83	96.37 ± 22.65	47.64 ± 20.15
		101 (39 - 132)	98 (46 - 149)	41.5 (17 - 84)
	Income equal to expenses	100.93 ± 21.84	99.64 ± 22.99	56.6 ± 21.43
		104 (39 - 146)	99 (46 - 148)	58 (12 - 84)
Statistical values		0.067(m)	0.495(m)	0.023(m)
Social security	Yes	99.5 ± 21.29	99.37 ± 21.08	56.02 ± 20.95
		104 (39 - 146)	99 (52 - 148)	60 (15 - 84)
	No	94.0 ± 21.22	95.57 ± 24.5	45.3 ± 19.7
		101 (42 - 132)	98 (46 - 149)	41 (12 - 84)
Statistical values		0.079(m)	0.291(m)	0.009(m)
Spare time activities	Sports	114.4 ± 18.85	121.8 ± 22.2	66.4 ± 15.92
		111 (97 - 146)	127 (98 - 143)	60 (52 - 84)
	Television	93.7 ± 22.96	93.28 ± 23.88	51.4 ± 20.91
		101 (39 - 135)	97 (46 - 148)	52 (12 - 84)
	Books	109.75 ± 18.14	117.75 ± 19.81	73.0 ± 1.41
		107.5 (91 - 133)	113 (101 - 144)	72.5 (72 - 75)
	Hanging out with friends	108.79 ± 9.54	107.93 ± 15.87	64.08 ± 20.33
		106.5 (90 - 132)	103.5 (95 - 149)	72 (17 - 84)
	Other	93.63 ± 19.85	95.17 ± 19.53	40.31 ± 17.1
		97 (39 - 132)	98 (46 - 136)	36 (15 - 84)
Statistical values		0.009(k)	0.004(k)	<0.001(w)
How do you behave when faced with a problem?	I solve the problem myself	98.81 ± 21.53	93.15 ± 22.95	51.66 ± 22.45
		104 (42 - 146)	97 (46 - 145)	52 (12 - 84)
	I ask for help from my parents	99.14 ± 20.17	104.75 ± 27.29	55.46 ± 20.52
		104 (45 - 121)	103 (53 - 149)	53.5 (19 - 84)
	I ask for help from my friends	107.5 ± 6.83	107.57 ± 16.69	64.86 ± 17.72
		107.5 (97 - 115)	104 (95 - 143)	72 (36 - 84)
	Other	90.89 ± 22.65	95.89 ± 18.11	43.78 ± 17.99
		97 (39 - 132)	98 (53 - 136)	37 (17 - 84)
Statistical values		0.028(k)	0.021(k)	0.03(k)

Table 4. Comparison between the Sociodemographic Characteristics of Hemodialysis Patients and Total Scores for Oxford Happiness Questionnaire (OHQ), Resilience Scale for Adults (RSA) and Sub-scales and Multidimensional Perceived Social Support Scale (MSPSS) (continued 2)

		Mean ± SD	Median (Min–Max)	
		Oxford Happiness Questionnaire Total Score	RSA Total	MSPSS Total
Duration of disease	Less than 1 year	106.11 ± 7.78	101.72 ± 10.13	66.94 ± 15.38
		106 (83 - 119)	99 (92 - 148)	72 (33 - 84)
	1-3 years	95.22 ± 22.36	99.31 ± 28.38	45.53 ± 19.68
		101 (42 - 135)	100 (46 - 149)	42 (12 - 84)
	3-5 years	92.29 ± 25.77	97.11 ± 25.99	44.86 ± 19.76
		95.5 (39 - 133)	99 (53 - 145)	38.5 (20 - 76)
	5 years and above	90.92 ± 24.47	89.58 ± 23.42	41.62 ± 19.02
		95.5 (49 - 146)	92.5 (52 - 135)	38.5 (15 - 84)
Statistical values		0.003(k)	0.245(k)	<0.001(k)
Behavior in case of health issues	I wait for it to pass	101.13 ± 20.13	96.74 ± 18.16	59.15 ± 21.18
		104.5 (39 - 146)	99 (53 - 144)	70.5 (19 - 84)
	I wait for it to pass but if it doesn't I go to a healthcare center immediately	92.39 ± 22.35	95.8 ± 25.15	42.9 ± 17.68
		97 (42 - 135)	98.5 (46 - 145)	41 (12 - 83)
	I immediately apply to a healthcare center thinking that it may be an important issue	96.56 ± 22.43	105.06 ± 29.9	53.19 ± 20.53
		101 (45 - 131)	101 (52 - 149)	52.5 (15 - 84)
	I do nothing	93.5 ± 20.3	97.2 ± 22.89	36.9 ± 15.0
		90.5 (52 -132)	98 (46 - 135)	33 (20 - 74)
Statistical values		0.072(k)	0.784(k)	<0.001(a)

(m) Mann Whitney U Test (k) - Kruskal Wallis Test - (a) Anova T-test

Highest perceived social support was observed in those who read books during their spare time. Spare time activities reduce stress and protect mental health(34). Whereas highest perceived psychological resilience was observed in those who are involved in sports activities and read books during their spare time.Highest perceived happiness level was observed in those who are involved in sports activities during their spare time. Indeed, sports is an activity that increases happiness (35).

The psychological resilience levels were higher for those who ask for help from their friends in case of any problem. The behavior of asking for help is a critical factor that prevents delays in treatment (36). It can be observed that the perceived social support levels are higher for such patients and those they are happier.

Happiness level increases with education level in hemodialysis patients. Happiness levels are higher for employed individuals. Happiness levels decrease with increasing disease duration and perceived social support decreases.This is an expected result since increasing duration of time decreases the quality of life (37).

Limitations
Lack of control group in this study is the limitation of this study.Definitive comments cannot be made regarding the causality of the relations since the study is cross-sectional. Another limitation of the study is that patients with chronic kidney failure have not been evaluated separately according to hemodialysis durations. Also structured psychiatric assessment like SCID II did not be performed. So some additional diagnosis is likely to be missed. However a psychiatry nurse has taken a second psychiatric anamnesis.

Implications For Clinical Practice
Perceived social support is correlated happiness levels positively. Psychological resilience is correlated perceived social support positively. Happiness levels increase with increasing psychological resilience. So if we could increase the psychosocial support systems of the patients, they would have greater psychological resilience and would be happier. So continuity of treatment compliance and better mental and physical health status could be provided.

CONCLUSION

Happiness levels and psychological resilience ofhemodialysis patients increase with increasing perceived social support. Happiness levels increase with increasing psychological resilience.Education, age, spare time, duration of the diseases, a certain attitude, marital status, health issue behaviors, number of children, monthly income, employment status are all related with perceived social support. Education, age, spare time, duration of the disease, a certain attitude, number of children and employment status are related with happiness levels.

Whereas education, age and spare time are related with psychological resilience. Hemodialysis patients should be evaluated mentally and it should be ensured that they receive psychosocial support.

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